The Craft of Generalism

Clinical skills and attitudes for whole person care

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Abstract
Generalists manage a broad range of biomedical and biographical knowledge as part of each clinical encounter, often in multiple encounters over time. The sophistication of this broad integrative work is often misunderstood by those schooled in reductionist or constructivist approaches to evidence. In this paper we discuss the need for a practical and philosophically robust description of the first principles of generalist approaches to knowledge about the whole person. We name the Craft of Generalism in light of the philosophical approach to whole person knowledge explored in the newly described methodology of Transdisciplinary

Generalism. The Craft of Generalism is grounded in four first principles that define the required scope, process, priorities, and knowledge management skills of generalists seeking to care for the whole person. These principles are Whole Person Scope, Relational Process, Healing Orientation, and Integrative Wisdom. They describe a requisite set of skills and attitudes that underpin knowing about a whole. If any element of these first principles is left out, the resultant knowledge is incomplete and philosophically incoherent. Clarifying the Craft of Generalism can protect generalism from the colonization of a narrowed medical gaze that excludes all but reductionist evidence or constructivist experience. Naming the Craft of Generalism clarifies the sophisticated skills of the generalist clinician. It may also help to define and encourage the use of generalist approaches to knowledge in other settings across the community – including health policy and research.

Key Words: generalism, whole person, epistemology, primary care, complexity

Introduction

Any coherent approach to knowing needs to acknowledge the underlying ways that knowledge is valued (epistemology), that rigour is established (logic), and reality ascertained (ontology). Reductionism (positivism) and constructivism (post-positivism) are clearly defined approaches to knowing that necessarily exclude each other and therefore cannot attend to the whole. Unless there is an integrative way to see through them to the whole interconnected material and subjective human organism, they cause an artefact, a false legitimacy, a spurious precision. [1] Generalism offers a way to know that transcends and includes both reductionist and constructivist ways of understanding. [2] Generalism sees across both the physical science and social science disciplines and therefore is useful in many areas of human society. It is useful for all professions that seek to be person-centred, especially those who see the person within their life story and communal context.

In healthcare, there is a growing blindness to the integrating force of the generalist gaze. [2,3] Health policy and practice increasingly move towards medical care that relies on reductionist forms of evidence, clinical algorithms, biotechnical measures, and transactional encounters. Medical advances using empirical evidence that is reductionist, deterministic (prognostic), de-contextualised, and dualist, tend to overvalue a narrowed objectified view of the person. These linear empirical research approaches have taken over clinical practice and health service policy with unrealistic claims of certainty and value-free 'science'. Similarly, constructivist forms of knowledge disconnected from biological reality also fragment knowledge about the whole, leaving clinicians without coherent ways to approach the physicality of their work. This is not simply a theoretical or philosophical concern; it affects breadth of understanding and quality of clinical decision making; it affects research designed for patient-centred care.

Social isolation and individualised understanding of disease disconnected from its communal context, especially in recent times of crisis, have accelerated these powerful trends. Without a coherent scientific and robust philosophical account of generalist skills and attitudes to knowledge, these forces threaten to unravel medical care into smaller and smaller parts.[4] Generalism is a unifying way of seeing the person that offers a philosophical underpinning to any clinical care that purports to be patient-centered. In the primary care setting, generalism has been defined as expertise in whole person medicine that integrates "biomedical and biographical understanding". [5, p. 1]

In this paper, we propose the concept of the Craft of Generalism to translate complex philosophical approaches to knowledge into an understanding of everyday patient-centred clinical practice and research. We draw on philosophical underpinnings of the recently described concept of Transdisciplinary Generalism to develop a coherent understanding of the first principles of generalist approaches to knowledge. We name these skills and attitudes a 'craft' as "quality-driven work"[6] refined through experience for its own sake and the communal good, despite being often "unrewarded or invisible".[6] This concept of craftsmanship may help to describe what generalists spend their lifetime learning and refining. It is more than an 'art', and more than a 'science'. In the hands of an experienced generalist (not just those in healthcare), this craft is a sturdy pillar of humane approaches to the person. In an increasingly technological and reductionist sound-bite world, this sophisticated discernment linking both evidence and experience is valuable.

A number of these valued skills and attitudes need no formal explanation to generalists. What is different in this paper is offering them as a set of requisite attitudes and skills in order to manage knowing about the whole in a philosophically coherent way. If any element of these first principles is left out, the resultant knowledge is incomplete or incoherent. We hope these first principles will influence primary care researchers, educators, and policy advocates, as well as enabling all generalists (especially family physicians) to respect, describe, hone, value and defend the quality of their own work.

The Person: A Complex Whole

Across the ages, except for the Greek and Cartesian dualist interruptions, human beings have been understood as 100% material (or bodily) AND 100% dynamic, social, relational, experiential, and meaning-making organisms situated in culture and environment (and some would add 100% spiritual and transcendent). As Eric Cassell describes:

> *A person is an embodied, purposeful, thinking, feeling, emotional, reflective, relational, human individual always in action, responsive to meaning, and whose life in all spheres points both outward and inward. Virtually all of a person's actions—volitional, habitual, instinctual, or automatic—are based on meanings. Persons live at all times in a context of ever present relationships in which a variable degree of trust is necessary both in others and in the self.* [7]

This complex human being cannot be *reduced* simply to an object of study or *constructed* as simply subjective and relational. As Kirkengen reminds:

> *Medical thinking needs to be changed, not by bridging the gap between human subjectivity and materiality, but by realizing that these two were never separate* [8].

Attending to, integrating, and interpreting both these forms of knowledge concurrently is the privilege and complex challenge of the generalist.

Reductionist Biology: An Important Subset of Whole Person Knowledge

Although social reductionism is also possible, [9] in medicine, reductionist approaches to knowledge are used to understand the body as an object observed by a rational (disembodied[10]) observer. Reductionism highly values repeatable specificity and assumes the hypothetico-deductive linear causality of the natural sciences (with the notable exception of quantum physics[11] and systems biology). These values are important and have contributed to

good quality biomedical evidence, diagnosis, prognosis, clinical decision-making, and therapeutic outcomes. This form of knowledge relies on a disembodied observer (which disqualifies the relational clinician), and the exclusion of complicating variables (which therefore excludes most primary care patients). Although never designed to be a comprehensive account of medical knowledge, [12] the capacity for biomedical evidence using this form of logic to predict and offer certainty has led to a "paradigmatic monopoly" [11] of this form of knowledge, or evidence, as the basis for medical understanding and decision-making.

For any clinician seeking to attend to the complex humanity of their patients, reductionism raises philosophical concerns about an approach where "biology is granted primacy, human subjectivity is regarded as an additional and secondary issue and the body remains a silent depersonalized object". [13, p. 1096] Frankl defines reductionism as "pseudo-scientific procedures that take human phenomena and either reduces them to or deduces from them subhuman phenomena". [14] This can narrow the medical gaze.[15]

An overreliance on linear causality, and scientistic [16] views of reductionist evidence have not served the generalist well – they "neglect the suffering human subject and the social context of illness." [17, p. 312] Generalists describe "epistemic incongruence" [18] and "epistemic injustice" [19], when trying to apply reductionist knowledge to whole person care. These limitations are made more obvious in the face of complexity [20] such as multimorbidity, [20-22] medically unexplained symptoms, [23,24] and social determinants of health. Even experienced family physicians describe resultant incoherent diagnostic frameworks, shame, and hopelessness[25] that can lead to diagnosis as "defence against confusion and uncertainty", [26] and prescription as a way to "subsume complex problems". [27] Among generalists, this has led to demoralisation; an uncomfortable sense that we are no longer able to offer comprehensive humane care; and an inability to explain and teach the value of the relational, intellectual, and embodied skills of the clinical encounter. Reductionist knowledge has an important and useful role when contextualized by the generalist approach.

Constructivist Biography: Another Important Subset of Whole Person Knowledge

Constructivist approaches to knowledge about biography on the other hand, highly value subjective relational and meaningful knowledge formed through collaboration and reflexive consultation. This form of knowledge, although not linearly repeatable is valued because it is authentic, participatory, and grounded in the person's real world and community. Constructivist approaches to knowledge use inductive logic, interpersonal and contextual awareness, and participatory critique. This is a contrasting approach to knowledge – a different epistemic culture [28] with different values and language. Person-centred, patient-centred, and narrative medicine approaches are informed by this way of valuing subjective relational knowledge. Any discussion of the process of the clinical interaction and diagnostic process (or the embedded researcher's influence) values this form of knowledge – attending to relationship, discourse, communication, subjective meaning and beliefs, interpretation, embodied or unarticulated perception, pattern recognition, context, ethics, clinical judgement, tacit reasoning, and managing uncertainty. These skills are part of generalist approaches, but they neglect biology, and therefore do not attend to the whole.

Transdisciplinary Generalism: A Both/And Way to See the Whole Person

Fundamentally, in a whole person, biology and biography cannot be considered separately as an 'either/or'. The generalist gaze is not simply a juxtaposition of reductionist biomedical knowledge and biographical knowledge. It is not simply a mixed methods approach to

knowledge. It is a coherent craft of attending to a whole [2] that acknowledges the complex humanity of both clinician and patient , sees "all forms of distress as legitimate"[29], and brings together "the human experience of suffering and the paradigms of scientific medicine". [29]

This bringing together of knowledge is a distinct philosophical approach to knowledge of the whole. It is a form of knowledge management indigenous to generalists that needs to be named and valued alongside more dominant approaches to knowing. The philosophical methodology, Transdisciplinary Generalism [2] is built on a philosophical understanding of transdisciplinarity emerging from quantum physics that includes both particle and wave of light (and therefore both biology and biography). Rather than Aristotolean either/or logic, this approach invites a 'both/and' approach that intentionally transgresses knowledge paradigms and disciplines in order to see the whole.

Like generalism, trandisciplinarity uses inclusive logic that values deductive, inductive, and abductive (seeking the simplest and the most likely explanation from a set of observations) forms of reasoning and sense-making [30], it assumes multiple levels or dimensions of reality, sees knowledge as dynamic and emergent, and necessarily formed in discerning relationship.

Transdisciplinary Generalism, describes the required elements of a research methodology and clinical method that attends to the whole as: *Broad Scope* (integrative purpose and inclusive scope); *Relational Process* (collaborative understanding and participatory co-creation); *Complex Knowledge Management* (complex problems and coherent integration); *Humble Attitude to Knowing* (emergent attitude and reflexive position); and *Translative Real World Impact* (pragmatic focus, outcome orientation). These first principles are integral parts of the Craft of Generalism.

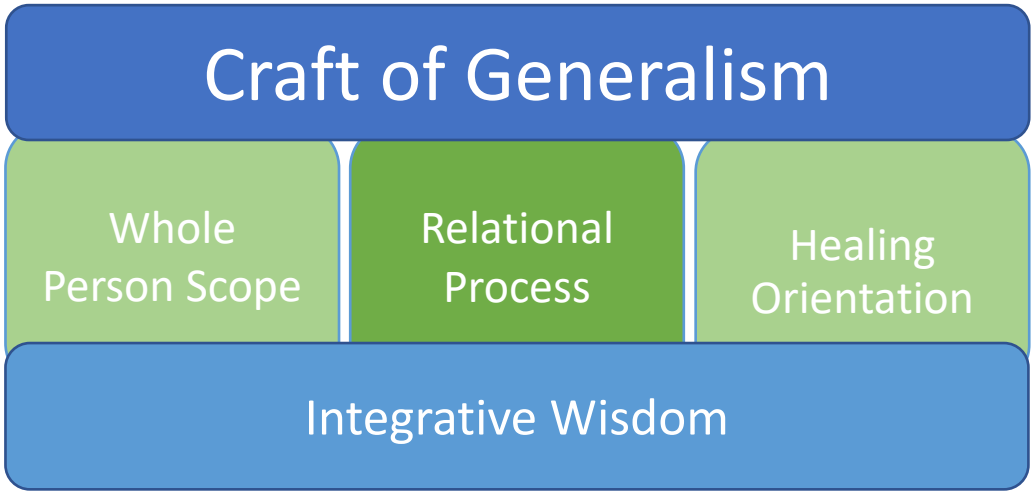
Defining the Craft of Generalism

Bringing together reductionist and constructivist knowledge is not simply considering empirical science and the experiential art of medicine across an artefactual gap; it is an active intentional holding of the integrated whole organism. We propose that the integrative attuned process of 'crafting' is a practical embodied form of knowledge, grounded in relationship, that transcends the limitations of reductionist evidence or constructivist experience. . When generalism genuinely offers whole person care, it can offer an alternative to the artefacts and assumptions of a health system that relies on reductionist or constructivist disciplinary knowledge.

The Craft of Generalism as defined in this paper has four first principles that practitioners cross the disciplines and researchers can use to understand the scope, process, priorities, and knowledge management of the generalist. Interestingly, the Craft of Generalism aligns well with the philosophical priorities of Clinical Pragmatism that sees robust knowledge of the whole requiring *plural* sources of knowledge, *participatory* process, *pragmatic* goals, and a *provisional* attitude to knowledge. [17] It also builds on critical and subtle realism, [31] the biopsychosocial framework, [32] Indigenous approaches to social and emotional wellbeing,[33] and both philosophical [34] and pragmatic [35] forms of transdisciplinarity.

The Craft of Generalism requires a *Broad Scope* of knowledge gathering formed in a collaborative and participatory *Relational Process* with a real-world Outcome *Orientation.* Overarching all, it requires a wide inclusive deductive, inductive, and abductive logic that acknowledges complexity and the provisional nature of knowledge: *Integrative Wisdom.* In

the health care setting, these aspects of the Craft of Generalism can be named as described in Figure 1.



Whole Person Scope

Generalist philosophy values comprehensive whole person care [5]. This clearly defines the breadth, depth, and length of scope of knowledge required to be a generalist clinician. [2] Being person-centred [36] and caring for a person within their community over their lifetime, requires a scope of attention that goes beyond disease identification and treatment to include their environment, social climate, relationships, body, inner experiences, sense of self and spirit or meaning. [37,38] This scope allows transdisciplinary knowledge about the intersection of subjective inner perceptions, meaning, story and culture alongside complex biomedical understanding of the body. [2,38,39] Whole person scope is based on plural sources of information, including both reductionist and constructivist forms of knowing. It therefore includes and values relational, pragmatic and ethical tasks alongside biomedical knowledge [40] for the sake of the whole person.

Relational Process

Knowledge is formed in relationship. Generalist clinicians already know that accurate disclosure, and accurate perception and interpretation of information requires trust in attuned relationship. The quality of physician-patient relationship impacts patients' functional health [41] and having been through critical life events together builds relational trust [42]. The importance of relationship, however, is more than continuity of care. [43,44] Relationship quality affects the value of the knowledge gathered.

Forming a diagnosis or formulation is an active relational process, attuned to the inner and outer worlds of both patient and clinician, and conducted over time. Formulating diagnosis and treatment goals involves interpreting dialogue and non-verbal communication in a delicate collaborative process to develop a "shared mind" [45] through "shared presence" [46] and "collaborative deliberation". [47,48] Relationships among colleagues also offer "collective sense-making" [49] or "consensus-making" [50] as part of discerning how to use knowledge in complex decision making. Relational process requires a capacity to understand story – a courageous, honest and empathetic capacity to "acknowledge, absorb, interpret and act on the stories and plights of others".[51] Generalist clinicians routinely incorporate constructivist

subjective relational and contextual awareness in medical decision-making; they co-construct knowledge with their patients, they use perception, interpretative logic,[31] and discernment [2] in each clinical encounter. Some generalists warn that only those who resist their current health care environment will remain "resilient relationists".[52] Relational process in forming knowledge about the whole person is a fundamental requirement of the Craft of Generalism.

Healing Orientation

The value of information is determined in part by what it will be used for. Generalists see health as purposeful, as a "resource for living and not an end in itself". [5, p. 1] They describe the wide goals of their care: to help people within their communities to step "forward in their fullness of their lives", [52] to "restore or improve the individual's health-related capacity for living", [53] offer "relief, repair and meaning", [54] and "rehabilitate a patient's sense of self". [55] This aligns with transdisciplinary approaches to knowledge that highly value a shared goal and real-world "socially-robust solutions" [56] as a way to prioritise plural sources of information.

So, whole person healing and health orientation is not just a 'holistic' way of directing care, it is a logical way to manage and prioritise knowledge. Naming the healing purpose of generalism defines the purpose of any clinical interaction, prioritises connection with the whole patient, and turns towards those in suffering to help them to connect with what is meaningful in their lives. [57,58] Clinicians can "develop better, truer, richer, more generous stories and case formulations in the service of healing and coping" [59]. Pellegrino saw that healing was linked to wholeness: "A healing decision is one that will make the patient whole again". [60] This aligns with the Old English meaning of the word 'healan' which means 'to make whole'.[61]

Integrative Wisdom

Integrative Wisdom is a sophisticated and complex intellectual and embodied sense-making skill, learnt throughout a lifetime of practice. It relies on inclusive Whole Person Scope, Relational Process, and Healing Orientation. It includes the use of deductive reductionist and inductive constructivist knowledge. It is an active process of inductive foraging [62] for relevant knowledge that might otherwise be missed – both problem solving and problem finding at once. [6] It includes repetitive hermeneutic cycles of looking wide for illumination, and narrowing attention to define – noticing the parts, the whole, and the patterns that connect them [11,63,64]. It is a sophisticated discernment of what is integral, involving listening, questioning, interpreting, discerning, and integrating to get a glimpse of the complex whole.[2]

Any description here will necessarily be incomplete, as those who study the process of professional knowledge explain: "the very aspects of a practice that escape observation, rule-making, and explicit routinisation are precisely those that make it valuable". [65] In fact one marker of this wisdom is the way it values uncertainty – it does not promise certainty. Generalists describe this wisdom when they value the non-expert position, [25] tolerate uncertainty, [66,67] don't prematurely categorise or foreclose on diagnosis too early, [68,69] and hold a provisional attitude to knowledge. Generalists describe a dynamic way of knowing that "recognises the changing nature of illness, uses provisional diagnoses and review, and specifically seeks to avoid contributing to a myth of medical certainty." [31, p. 8]. Transdisciplinary philosophy also sees potential and "merit in vagueness, uncertainty, and unpredictability because these states serve as prompts for potentialities". [70] This active

resistance of the "lure of mastery" [71] is "a kind of modesty about what an individual can and cannot do, knows and does not know" [14,71] while valuing curiosity and reflective practice.[72]

Integrative wisdom is more than pluralism. [73] It is an awareness of complexity [74,75] that includes managing attention around clinical priorities. Although often dismissed as 'unscientific' because it is not reductionist, this way of seeing is still philosophically robust, and scientific - if we use the definition of science offered by Mc Gilchrist: "science is neither more nor less than patient and detailed attention to the world".[76] Although this first principle of generalism is difficult to describe or measure, especially for those schooled in biomedical reductionist forms of science it must not be glossed over, simplified, or left out. It is a philosophically robust approach to the forms of knowledge required for whole person care.

Craft of Generalism: Protecting the whole

Unless there is coherent and philosophically robust understanding of generalism as a valid, reliable, and authentic unification of reductionist and constructivist evidence, patient (or person)-centred care, multidisciplinary practice, healthcare research and policy will be diminished. Unless generalist clinicians grasp the sophistication of their craft, its philosophical robustness, and practical usefulness, their contribution to health will increasingly be regarded asmerely a conglomerated subset of the less technical aspects of each biomedical specialty.

At present there are practical, professional and theoretical constraints on this generalist craft [52,77,78] including constraints on time to do this sophisticated relational work. Caring for the whole person remains a need of patients in our community. [79] Attending to the whole underpins early intervention, prevention, and innovation in healthcare. It serves to differentiate early disease from illness while also preventing overdiagnosis, over testing and over utilization of health care services. Defining the Craft of Generalism may help practitioners to value their own experience, integrate, prioritise and contextualise their work. It may convince policy makers to shift public funding towards practices that give time and respect to the sophisticated relational and intellectual tasks of generalist practice. It could facilitate teaching generalism to the next generation, and advocacy for whole person approaches to health, including defining what is good quality generalist practice and research. It could prompt integration of generalists as skilled strategic thinkers and doers into health innovation and translation team structures.

The Craft of Generalism has the potential to define and protect the whole of medicine and the people it serves from fragmentation. [77,80,81]. The Craft of Generalism is a philosophical commitment to breadth of scope, relationship as process, healing as a dynamic priority, and integration and interpretation of complexity as knowledge management. In a reductionist or constructivist world, the Craft of Generalism names something highly valuable to the community; care for the whole person. Refining, honing, and teaching this generalist craft should be a key priority of health policy around the world.

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